

**SECRET**

DPD-0505-60  
21 January 1959

MEMORANDUM FOR: Audit Liaison Officer  
SUBJECT: Engineering Change Proposal CDC-3  
David Clark Company, Incorporated

1. Enclosed is copy No. 2 of DPD-0290-60 from the David Clark Company, Inc. and two copies of ECP No. CDC-3.
2. Your review and comments are requested.

RECEIVED

[REDACTED]  
Contracting Officer

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DPD-DD/ [REDACTED] (21-1-60)  
Distribution:  
Orig - Audit Liaison Officer w/cy 2 of DPD-0290-60  
cc - " " " " " " " "  
cc - Contracts w/cy 1 of DPD-0290-60  
cc - Chrono

DOCUMENT NO. 22  
NO CHANGE IN CLASS. ☒  
☐ DECLASSIFIED  
CLASS. CHANGED TO: TS S C 2011  
NEXT REVIEW DATE: \_\_\_\_\_  
AUTH: HR 70-2  
DATE: 020671 REVIEWER: 010858

**SECRET**

0290-60  
2

7 January 1960

Dear Dan:

In response to verbal request from staff personnel of your organization, we enclose Engineering Change Proposal CDC-3 for your consideration.

One item on the Estimated Bill of Materials, namely, conductive coating on the helmet visor, may appear to be quite high. This conductive coating is a fairly new process and it was difficult to obtain accurate estimates; while we cannot be certain, we feel that it may ultimately be less on volume production.

Should any further information, or more complete breakdown, in any category be required, we shall be pleased to furnish it.

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JAN 11 3 23 PM '60

COMPANY NAME David Clark Company Incorporated		ENGINEERING STUDY <input checked="" type="checkbox"/>		CHANGE PROPOSAL <input checked="" type="checkbox"/>		PROPOSAL NO. CDC-3	
DATE 7 January 1960		AFFECTS WSPO <input type="checkbox"/>		PROJECT <input checked="" type="checkbox"/>			
NAME OF MAJOR COMPONENT High Altitude Pressure Suit Assembly		PART OR LOWEST SUBASSEMBLY High Altitude Helmet		PART NO. & MODEL OR TYPE MA-2			
TITLE OF PROPOSAL: Development & Production of Helmet for Partial Pressure Suit							
NATURE OF PROPOSAL:  See Attachment #1							
REASON FOR PROPOSAL:  See Attachment #2							
ES	ESTIMATED COST AND TIME INVOLVED: ADDITIONAL FUNDING REQUIRED:						
CP	ESTIMATED COST FOR KITS OR PARTS: See Attachment #3 ADDITIONAL FUNDING REQUIRED: Original funding required.						
ITEMS AFFECTED BY PROPOSAL: Kit, oxygen survival-SPQ207,270,198							
Safety	Mission Effectiveness	Performance	Operating procedure	Interchangeability	Weight or balance	Tools & support equip.	Maintenance
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
EST. MAN/HRS. REQ'D TO ACCOMPLISH IN FIELD					2		
SOURCE OF PARTS FOR KIT David Clark Company Incorporated				AVAILABILITY _____ WEEKS AFTER APPROVAL See Attachment #3			
DISPOSITION OF SPARES AFFECTED Returned to Air Force Depot							
INITIATED BY: David Clark Company				APPROVED: WSPO			
Approved For Release 2001/07/24 : CIA-RDP64B00187A000700120018-1							

DAVID CLARK COMPANY  
INCORPORATED

Engineering Change Proposal CDC-3  
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Attachment #1

Nature of Proposal

- a. Provide a replacement item for the Type MA-2 High Altitude Helmet without change of associated protective garments.
- b. Facepiece seal and locking pneumatic ring will be connected by non-kinking, non-collapsible, one-quarter inch hose to the upstream side of the seat pack oxygen inlet check valve. The sealing ring will operate at any pressure in range of forty five to one hundred p.s.i. Seal pressure hose will be routed immediately adjacent to present oxygen mask delivery hose.

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Attachment #2

Reason for Proposal

- a. Helmet would provide an integrated facepiece which would enhance operational capability and safety by providing easy and positive opening and closing of the facepiece without detachment of this item.
- b. Helmet would provide an integrated sun shield and facepiece guard.
- c. Inner head harness is integral and supported by the hard shell and can be adjusted by the wearer during normal wear.
- d. Improved comfort to the wearer in the glottis area due to improved design of the neck seal skirt.
- e. Improved maintenance capability by eliminating critical facepiece seal required on bladder and cover assembly, or S-692 Cover and Bladder Assembly.
- f. Improved maintenance capability by eliminating potential helmet bladder puncture by helmet hold-down attachments.
- g. Improved inhalation and exhalation valve arrangement. New type exhalation valve provides opportunity for emergency control of exhalation valve if stuck open under pressure.

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Attachment #2

Reason for Proposal (continued)

- h. Improved windblast protection resulting from integral design of facepiece and helmet shell.

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Engineering Change Proposal CDC-3  
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Attachment #3

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a. Estimated Cost

Item One - Production Sample Helmet

\$

Scope of Work

Modify current David Clark Company Model S-880 Helmet used with the A/P-22S-2 full pressure suit so that it will be compatible with the partial pressure suits utilized on the project.

Specific areas of modification are as follows:

- I. Modify helmet mold to delete neck bearing, and provide for attachment of neck seal skirt.
- II. Redesign the S-692 Helmet Bladder and Case Assembly neck seal skirt to adapt to the hard shell made from the mold in "I" above.
- III. Redesign the helmet suspension so that the face seal can be eliminated without affecting support and adjustability.
- IV. Provide for mounting the inspiratory and expiratory valves, hose connectors, electrical and communications leads.
- V. Provide conductive coated face plate for normal and emergency face plate heat.

Item Two - Thirty (30) to fifty (50) each Production Helmets

Unit Price

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Attachment #3

b. Estimated Delivery

Item One - Sixty (60) days from date of authorization  
to proceed with ECP.

Item Two - First ten (10) helmets sixty (60) days from  
date of authorization to proceed with Item Two.

Additional twenty (20) helmets sixty (60) days  
from date of delivery of first ten (10).

Additional twenty (20) helmets thirty  
days from date of delivery of above  
quantity of twenty (20).



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Next 5 Page(s) In Document Exempt

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